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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/641,701	08/15/2003	Wook Kim	1235-5 (SP2006-US)	9980
28249 7590 05/02/2007 DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. SUITE 702 UNIONDALE, NY 11553			EXAMINER PARK, JUNG H	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/641,701

Applicant(s)

KIM, WOOK

Examiner

Jung Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claim 2 recites the limitation "the FEs" in step (c). There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayandeh (US 6069895, "Ayandeh") in view of Iwata (US 6108708, "Iwata").

Regarding claim 1, Ayandeh discloses a device comprising:

- at least one interface module (a plurality of line cards, see 48 fig.2 and col.7, ln.3-4) having a plurality of forward engines distributed and installed therein (forwarding engine and routing table, see 48 fig.2), each of the plurality of forward engines changing internal connection information to received internal connection information (VPI/VCI operation,

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see col.6, ln.1-11) and performing a connection operation (virtual connections, see col.6, ln.1-11);

- a controller (a central controller, see 46 fig.2 and col.7, ln.2) for allocating virtual path identifiers (VPIs) between the plurality of forward engines (VPIs in the routing table used by forwarding engine, see col.6, ln.1-11), the controller storing and managing information on virtual path identifiers (storing VPIs in the routing table used by forwarding table, see col.6, ln.1-11), managing internal connection information based on VPI information (stored VCI and VPI values, see col.6, ln.1-11), and providing the plurality of forward engines with managed internal connection information (the central controller provides updated routing information, see col.7, ln.63-67); and

- a switch (a switch fabric, see 42 fig.2) for switching a message packet between the plurality of forward engines (switch packets based on routing information in forwarding engines, see col.2, ln.46-48).

Ayandeh does not explicitly disclose the limitation of "allocating VPI according to an expression: $VPI\ number = (self\ forward\ engine\ number + relative\ forward\ engine\ number) \% total\ number\ of\ the\ forward\ engines$ ". That is, Ayandeh fails to disclose the method of predetermining VPI values.

However, Iwata discloses the method of predetermining VPI numbers for fast VC establishment (see col.1, ln.42-44 and also title)." Since the reason for the VPI calculation method according to the expression is not defined in the claim, the particular calculation method does not affect the patentable operability of the invention. The VPI predetermining method depends on the system designer since it appears another calculation method would work equally well. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of applicant's invention to apply the method of predetermining VPI numbers taught by Iwata into the routing table of Ayandeh in order to establish VC connection fast and efficiently by using the predetermined VPI values.

Allowable Subject Matter

5. Claim 2 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
6. Claims 3-6 are allowed.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

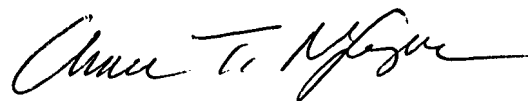
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JP

Jung Park
Patent Examiner

A handwritten signature in black ink, appearing to read "Chau Nguyen", with a long horizontal flourish extending to the right.

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600